

ABOUT THE CONFERENCE

This is the Seventeenth Symposium of the well-established series of conferences on thermophysical properties. The Symposium is concerned with theoretical, experimental, simulation, and applied aspects of the thermophysical properties of gases, liquids, and solids, including biological systems. Appropriate topics are:

- *Thermodynamic Properties*, including equation of state, phase equilibria, p-V-T behavior, heat capacity, enthalpy, thermal expansion, sound speed, and critical phenomena.
- *Transport Properties*, including thermal and electrical conductivity, viscosity, mass diffusion, thermal diffusion, non-Newtonian behavior, thermal, thermoacoustic, and other diffusion waves.
- *Optical and Thermal Radiative Properties*, including dielectric constant, refractive index, emissivity, reflectivity, and absorptivity.
- *Interfacial Properties*, including solid-solid interfaces, surface tension, interfacial profiles, interfacial transport, and wetting.
- *Data Correlation*, including data evaluation and prediction, standard reference data, databases, and storage and retrieval of thermophysical property data.

GENERAL INFORMATION

All technical sessions will be held at the University of Colorado, Boulder, Colorado, U.S.A. The Symposium is sponsored by the National Institute of Standards and Technology, the American Society of Mechanical Engineers, and the American Institute of Chemical Engineers. The Seventeenth Symposium email address is: symp17@boulder.nist.gov:

Chair of the Symposium:

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For further information, please access the Symposium web site at <http://symp17.boulder.nist.gov>, or contact the organizers at symp17@boulder.nist.gov.

SECOND ANNOUNCEMENT AND CALL FOR PAPERS

Seventeenth Symposium on Thermophysical Properties



17

<http://symp17.boulder.nist.gov>

June 21 - 26, 2009
University of Colorado at Boulder

Organized by:

- National Institute of Standards and Technology
- Committee on Thermophysical Properties
American Institute of Chemical Engineers
American Society of Mechanical Engineers

Conference held jointly with

3rd Conference on Thermophysical Properties
and Transfer Processes of Refrigerants

organized by

The International Institute of Refrigeration



CALL FOR PAPERS

Abstracts of 200-300 words must be received by **December 5, 2008**.

The abstracts must be submitted through the Symposium web page at <http://symp17.boulder.nist.gov>. Please refer to the website for the most current information.

The content of the abstracts will be the basis for acceptance of papers for presentation at the Symposium.

Oral, Poster and Database Demonstration Sessions will be held as part of the Seventeenth Symposium on Thermophysical Properties. All presentations will receive equal recognition as Symposium contributions. Prospective authors will be asked to indicate whether a poster presentation, oral presentation or database demonstration is preferred. The organizers will attempt to honor requests for each type of presentation, although the assignment of sessions may necessitate changes. Information on this subject will be included in the acceptance letters to be sent in early 2009. Papers describing all work presented at the Symposium are encouraged, but not required. Papers received by April 3, 2009 will be included in a CD-ROM preprint volume distributed at the Symposium. Papers received by June 21, 2009 will be reviewed, and those accepted will be published in special proceedings issues of the *International Journal of Thermophysics* and possibly other journals. *Electronic submission of manuscripts is mandatory.*

Submissions for IIR sessions will be handled separately; details are at the IIR conference website, <http://www.iirboulder2009.org/>

Keynote Speaker

Dr. Susan Solomon,
Senior Scientist, NOAA

"A World Of Change: Climate Yesterday, Today, and Tomorrow "

GENERAL SESSIONS

- Fluid Property Measurements
Rakesh Srivastava (Dow) & Arno Laesecke (NIST)
- Properties of Solids
Heng Ban (Utah State)
- Theory of Thermophysical Properties (Including Statistical Mechanics)
Clare McCabe (Vanderbilt Univ.) & Coray Colina (Penn State Univ.)

Celebratory Session in Honor of J.M.H. (Anneke) Levelt Sengers' Eightieth Birthday
Laura Japas (CNEA), Cor Peters (Delft), Allan Harvey (NIST)

SPECIAL FOCUS AREAS

- Correlations, Equations of State and Engineering Models
Eric Lemmon (NIST) & Vince Wilding (BYU)
- Databases and Software
Richard Rowley (BYU) & Michael Frenkel (NIST)
- Instrumentation and Measurement Techniques
Tom Bruno (NIST) & Zhuomin Zhang (Georgia Tech)
- Inverse Problems and Non-destructive Evaluation
Andreas Mandelis (Univ. Toronto) & Roberto LiVoti (Univ. Rome)
- Ionic Liquids
Luis Paulo Rebelo (Univ. Nova de Lisboa)
- Molecular Modeling (Including Simulations)
Vince Shen (NIST)
- Nonequilibrium Thermodynamics
Dick Bedeaux (Norwegian Univ. of Science and Technology) & Jan Sengers (Univ. Maryland)
- Optical and Thermal Radiative Properties (Including Surfaces and Micro/nanostructures)
Zhuomin Zhang (Georgia Tech)
- Photothermal and Photoacoustic Techniques
Andreas Mandelis (Univ. Toronto)
- Properties for Alternative Energy and Sustainable Development (Including Biofuels)
Carl Lira (Michigan State Univ.)
- Properties for Metallurgical Process Design
Ivan Egry (German Aerospace Center) & Doug Matson (Tufts Univ.)
- Properties for Microelectronics, Photonics, and Optoelectronics
Samuel Graham (Georgia Tech)
- Properties for Nanofluids and Nano/microfluidics
David W.M. Marr (Colorado School of Mines) & Y. Sungtaek Ju (UCLA)
- Properties of Aqueous Systems
Allan Harvey (NIST) & Ilja Siepmann (Univ. Minnesota)
- Properties of Biomaterials and Biomedical Systems
Neil Wright (Michigan State Univ.)
- Properties of Fossil Fuels (Including Carbon Capture and Sequestration, and Natural Gas Systems)
Sergio Quiñones-Cisneros (UNAM) & Simon Ivar Andersen (Haldor Topsøe A/S)
- Properties of Mesoscopic, Micro-heterogeneous, and Strongly Fluctuating Systems
Mikhail Anisimov (Univ. Maryland)
- Properties Needs for Nuclear Energy Systems
Max Gorenshek (Savannah River Nat. Lab.)
- Properties of Polymers
Chad Snyder (NIST)
- Properties of Refrigerants and Working Fluids*
Stephanie Outcalt (NIST) & Mark McLinden (NIST)
- Property Needs in Biothermophotonics
Andreas Mandelis (Univ. Toronto)
- Subsecond Thermophysics
Gernot Pottlacher (TU Graz)
- Thermal Properties of Nanostructured Materials
Xinwei Wang (Iowa State Univ.) & Ronggui Yang (Univ. of Colorado)
- Wetting, Interfaces, and Membranes
Marcus Müller (Univ. Göttingen)
- Posters
Joe Magee (NIST) & Jason Widegren (NIST)
- Software Demonstrations
Rob Chirico (NIST)

*Joint session with IIR

SYMPOSIUM WEBSITE: <http://symp17.nist.gov>